

CLAIMS

[1] A transparent sealant for organic EL element, which is used in an electroluminescence display panel comprising a light emitting element sequentially including a substrate, an anode layer, a light emitting layer and a cathode layer, and a sealing member disposed on the light emitting side of said light emitting element,

being characterized in that said transparent sealant for organic EL element is formed with a flexible polymer composition, and is disposed between the light emitting face of said light emitting element and said sealing member.

[2] The transparent sealant for organic EL element according to Claim 1, wherein the total transmittance of said transparent sealant for organic EL element is 90% or higher when it has a thickness of 0.5 mm.

[3] The transparent sealant for organic EL element according to Claim 1, wherein said flexible polymer composition is an elastomer composition.

[4] The transparent sealant for organic EL element according to Claim 1, wherein said flexible polymer composition comprises at least one polymer selected from the group consisting of a diene-based polymer, an olefin-based polymer, an acrylic-based polymer, an urethane-based polymer, a polyamide-based polymer, a polyester-based polymer, a vinyl chloride-based polymer, a fluorine-based polymer and a silicone-based polymer.

[5] The transparent sealant for organic EL element according to Claim 4, wherein said diene-based polymer is at least one polymer selected from the group consisting of a styrene-butadiene copolymer and hydrogenation thereof, a styrene-isoprene copolymer and hydrogenation thereof, a butadiene block copolymer and hydrogenation thereof, a styrene-butadiene-styrene block copolymer and hydrogenation thereof, and a styrene-isoprene-styrene block copolymer and hydrogenation thereof.

[6] The transparent sealant for organic EL element according to Claim 4, wherein said diene-based polymer is a hydrogenation of a conjugated diene-based block polymer, in which said conjugated diene block polymer comprising, in its molecule, at least one butadiene polymer block (I) having a vinyl bond in an amount less than 25%, and at least one polymer block (II) having a mass ratio [(a1)/(a2)] of a conjugated diene unit (a1) and other monomer unit (a2) of (100 to 50)/(0 to 50) and having a vinyl bond in an amount from 25 to 95%, is hydrogenated.

[7] The transparent sealant for organic EL element according to Claim 4, wherein said diene-based polymer is a hydrogenation of a conjugated

diene-based block polymer, in which said conjugated diene block polymer comprising, in its molecule, at least one polymer block having a mass ratio [(b1)/(b2)] of a conjugated diene unit (b1) and an aromatic vinyl compound (b2) of (99 to 50)/(1 to 50), and having a vinyl bond in an amount from 65 to 95%, is hydrogenated.

[8] The transparent sealant for organic EL element according to Claim 4, wherein said olefin-based polymer is at least one polymer selected from the group consisting of an ethylene- α -olefin copolymer and an ethylene- α -olefin-non-conjugated diene copolymer.

[9] The transparent sealant for organic EL element according to Claim 8, wherein said ethylene- α -olefin copolymer and said ethylene- α -olefin-non-conjugated diene copolymer have a functional group selected from the group consisting of carboxyl group, hydroxyl group, epoxy group, amino group, alkoxy silyl group, sulfonic acid group and nitrile group.

[10] The transparent sealant for organic EL element according to Claim 8, further comprising a metal ion and/or a metal compound.

[11] The transparent sealant for organic EL element according to Claim 1, wherein said flexible polymer composition comprises a liquid material.

[12] The transparent sealant for organic EL element according to Claim 11, wherein the kinematic viscosity of said liquid material at 40°C is 800 mm²/s or lower.

[13] The transparent sealant for organic EL element according to Claim 11, wherein the content of said liquid material is in the range from 50 to 5000 parts by mass based on 100 parts by mass of total of the polymer in said flexible polymer composition.

[14] The transparent sealant for organic EL element according to Claim 1, wherein said transparent sealant for organic EL element is a thin-walled body having a thickness at the thinnest part of 0.1 to 1,000 μm .